



The Universe

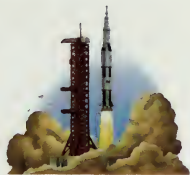


SCHOLASTIC

A FIRST DISCOVERY BOOK

THE UNIVERSE

Created by Gallimard Jeunesse
and Jean-Pierre Verdet
Illustrated by Donald Grant




A FIRST DISCOVERY BOOK

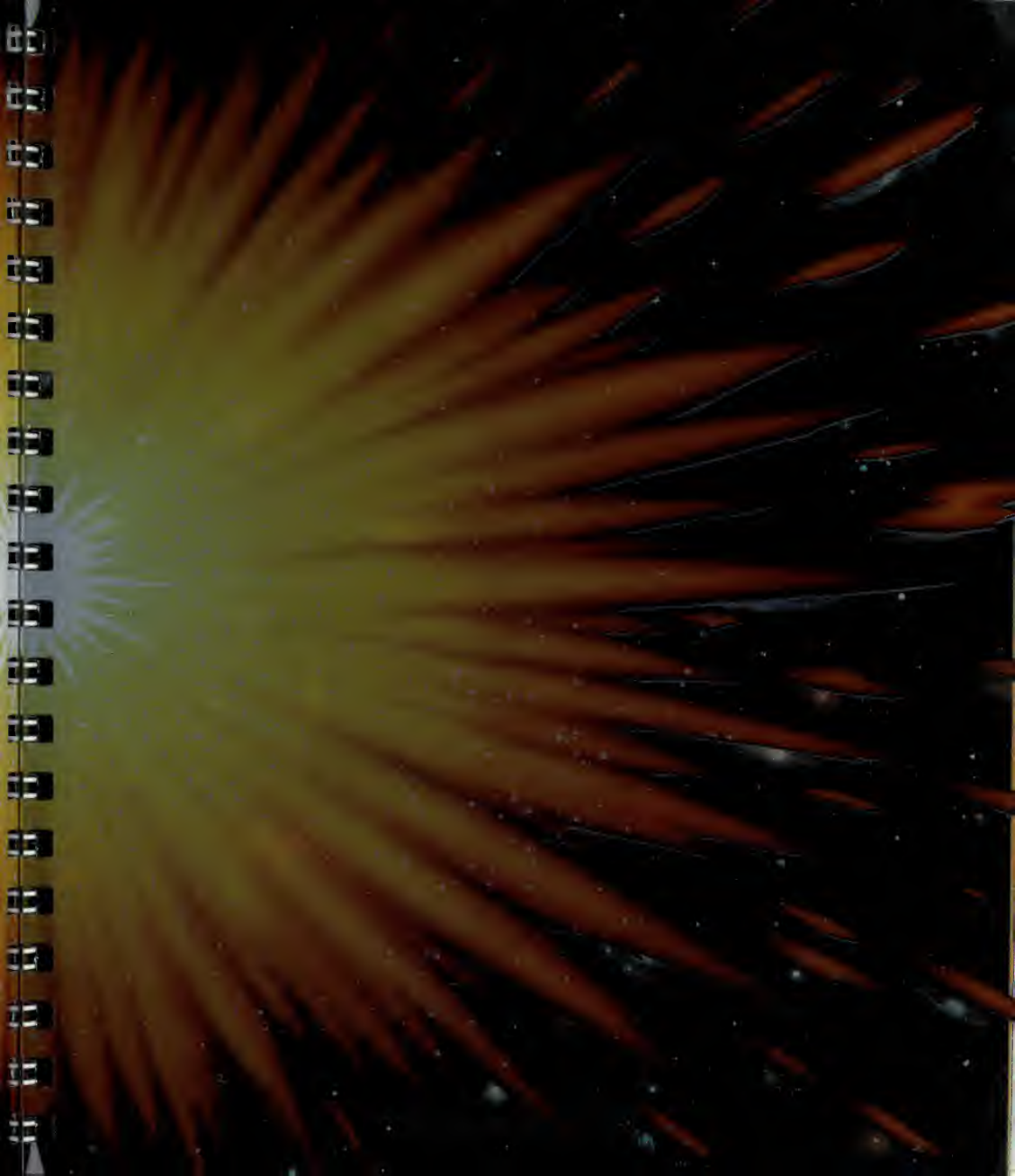
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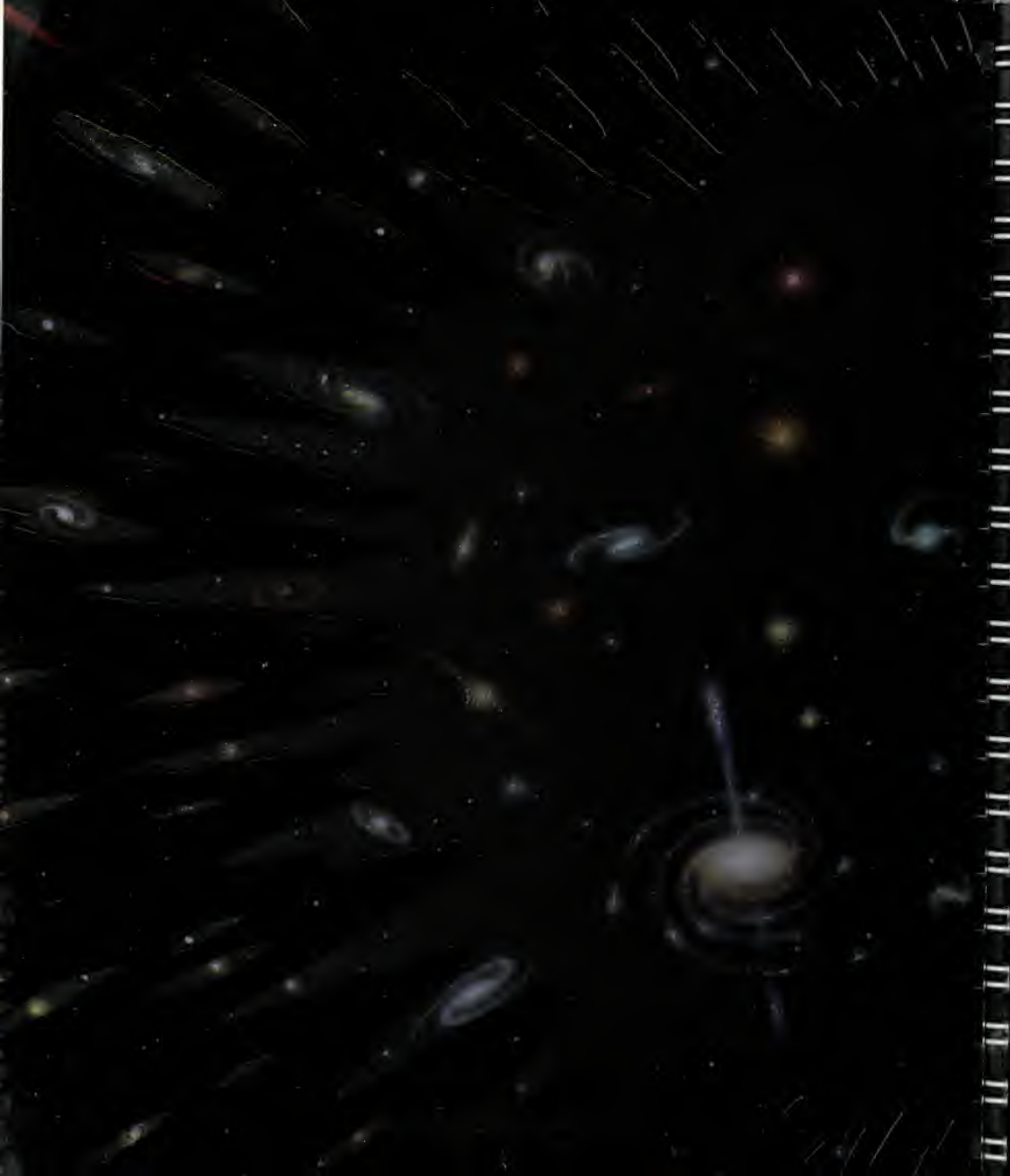
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Many astronomers think that our universe was created a very, very long time ago in a gigantic explosion called the Big Bang. Turn the page to see our universe as it exists today.





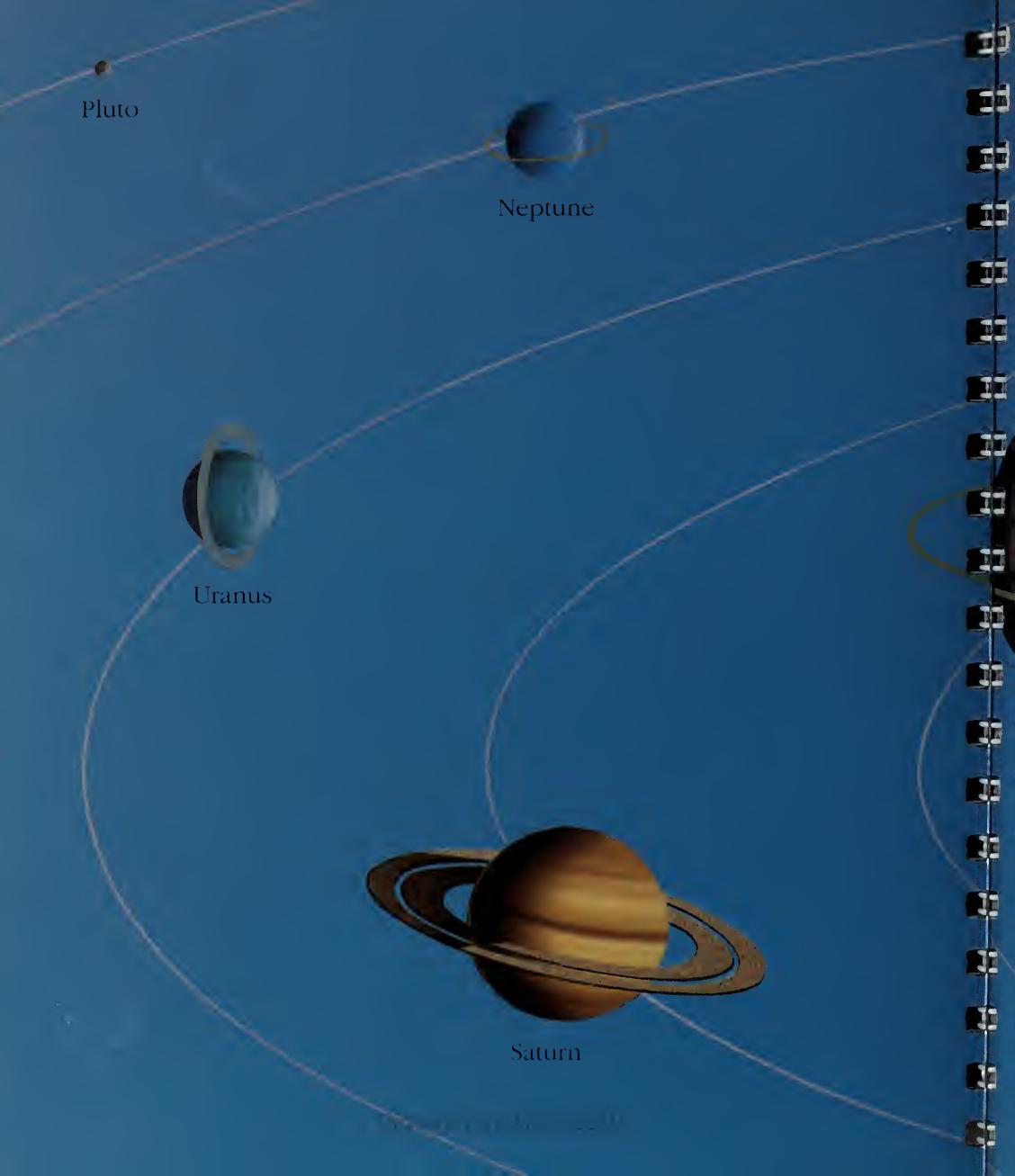


Pluto

Neptune

Uranus

Saturn

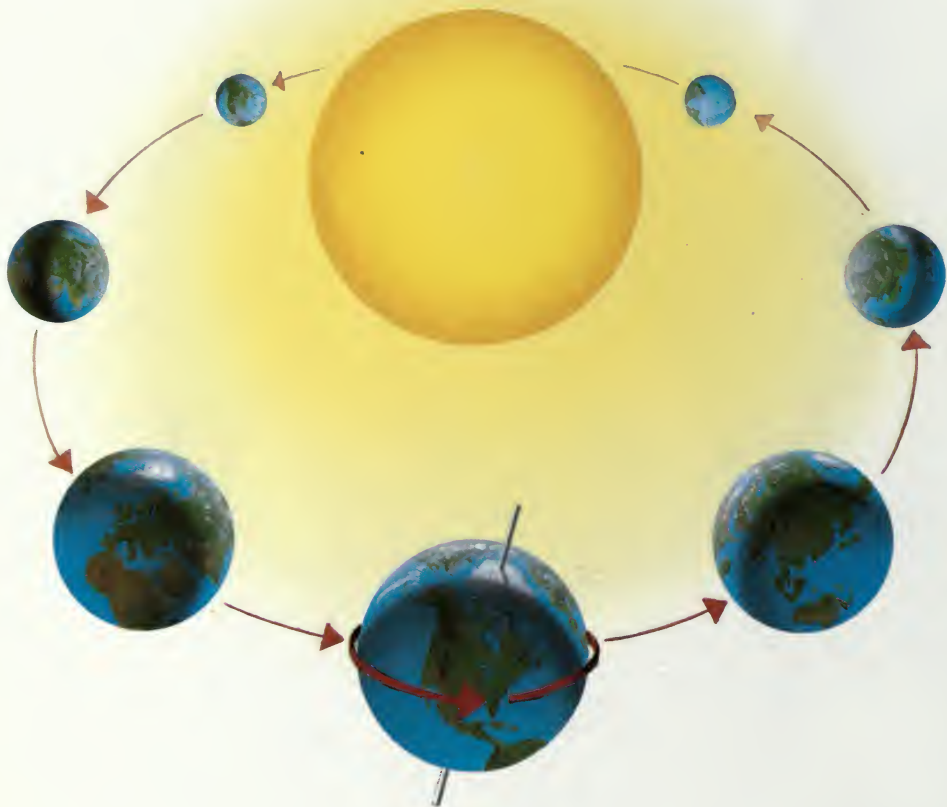


Here are the nine planets of
the Solar System:



Not to Scale

It takes one year for Earth to travel around the Sun. It takes one day or twenty-four hours for Earth to spin around.









It takes about one month for
the Moon to travel around Earth.



From 1969 to 1972, Americans sent
astronauts to explore the surface
of the Moon.

The Moon has no air. The surface is covered with high mountains and deep craters.





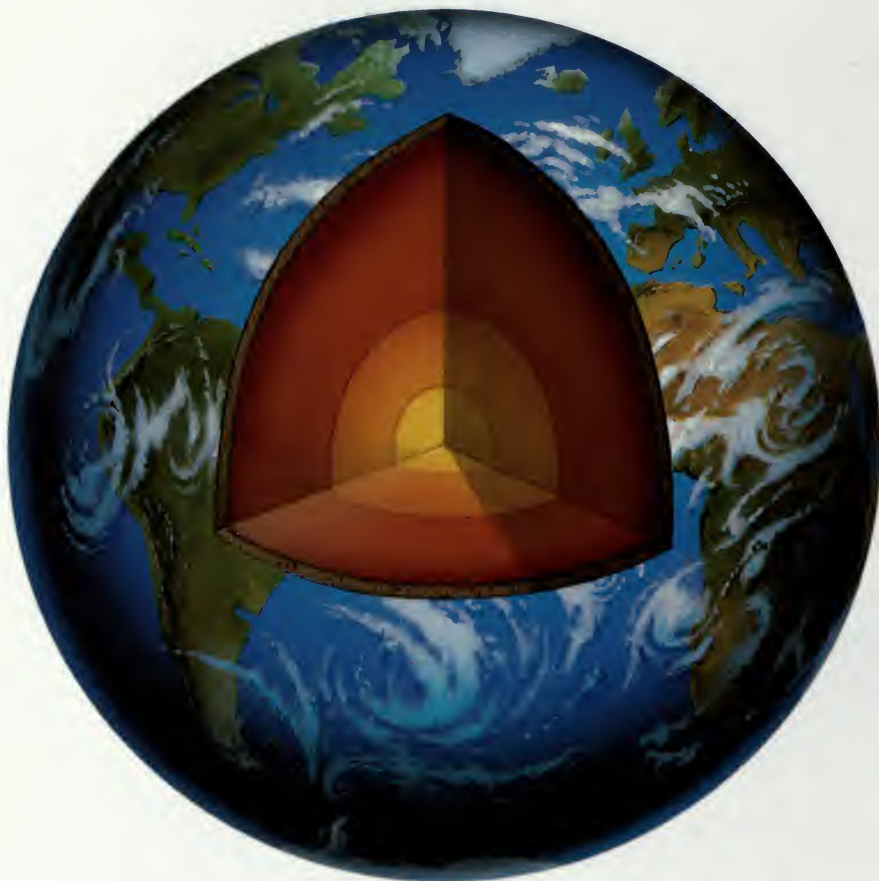
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The Moon has no air. The surface is covered with high mountains and deep craters.



Astronauts traveled on foot and in lunar rovers (or moon buggies) while on the Moon. They brought back hundreds of pounds of moon rocks.

Our Earth is made up of layers:
crust, mantle, outer and inner core.



Mars, Venus, and Mercury are rocky.



Mercury looks like the Moon, but is much hotter.

Mars has the deepest canyon and the highest mountain known in the solar system.

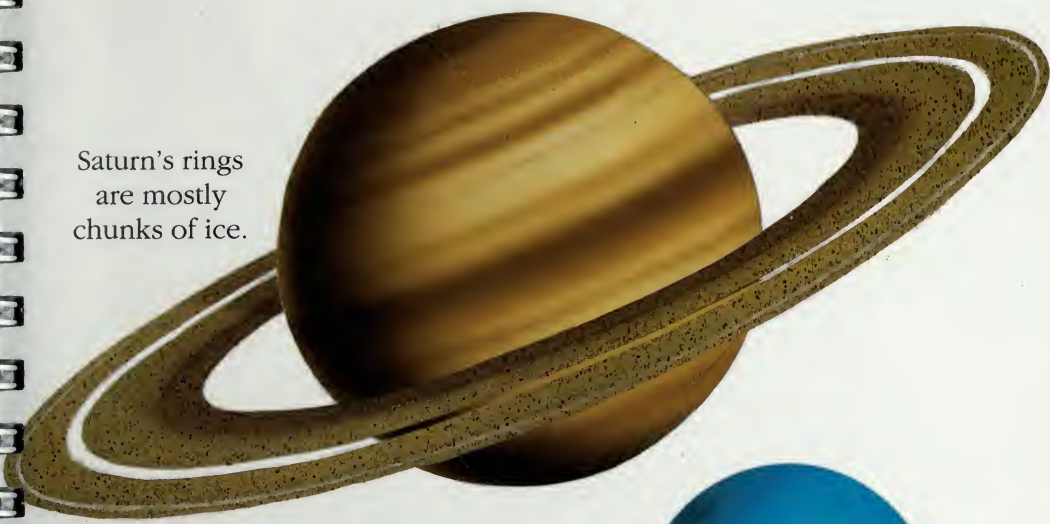


The Magellan spacecraft found that underneath thick, poisonous clouds, the surface of Venus is marked with volcanoes.


Jupiter is the biggest planet.
It is made of gases.



The *Voyager I* spacecraft discovered
that Jupiter has faint rings.



Saturn's rings
are mostly
chunks of ice.

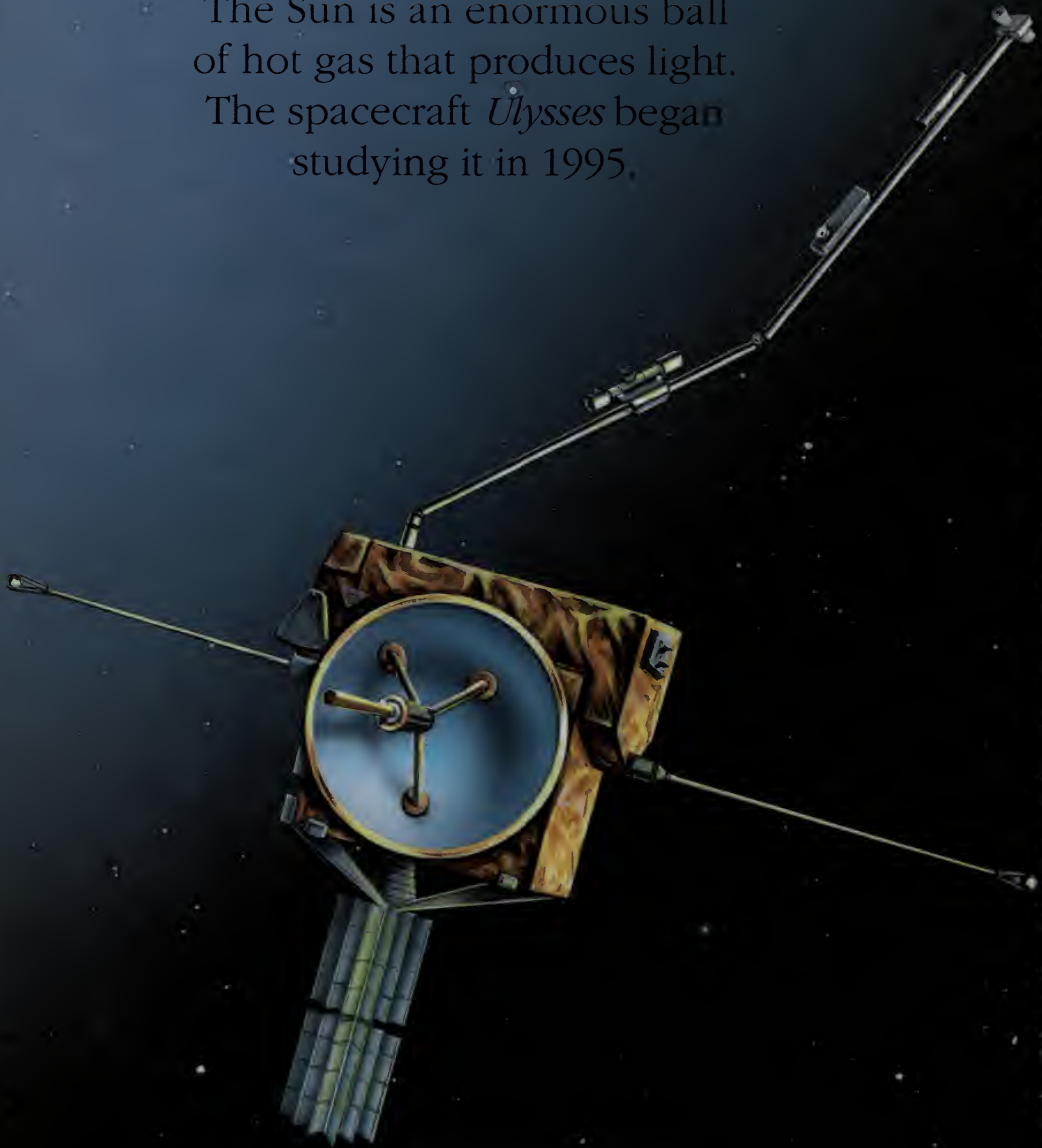


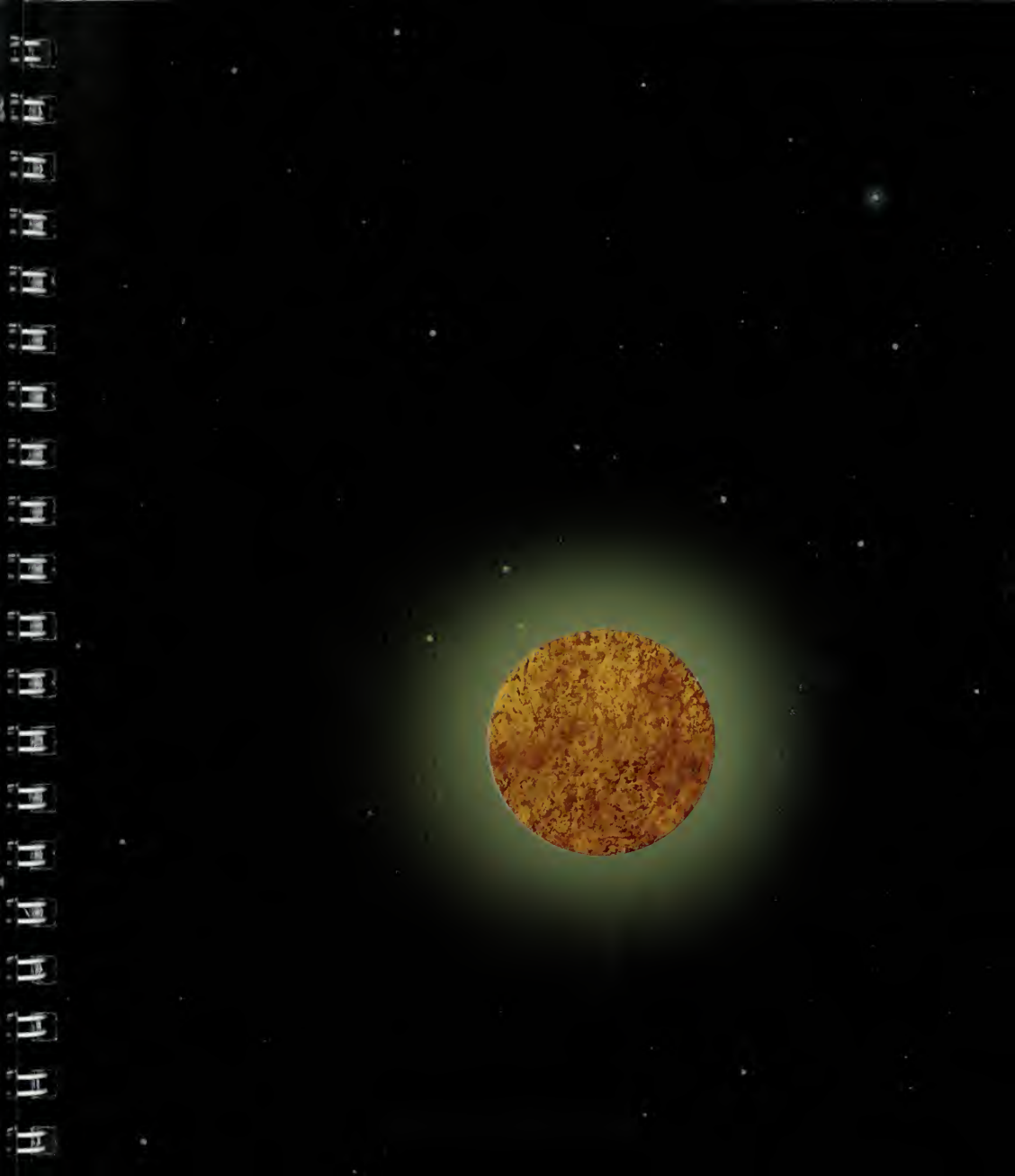
Uranus is made of gases that make
it blue-green, while Neptune's
gases make it blue. Neptune has
the strongest winds of any planet.

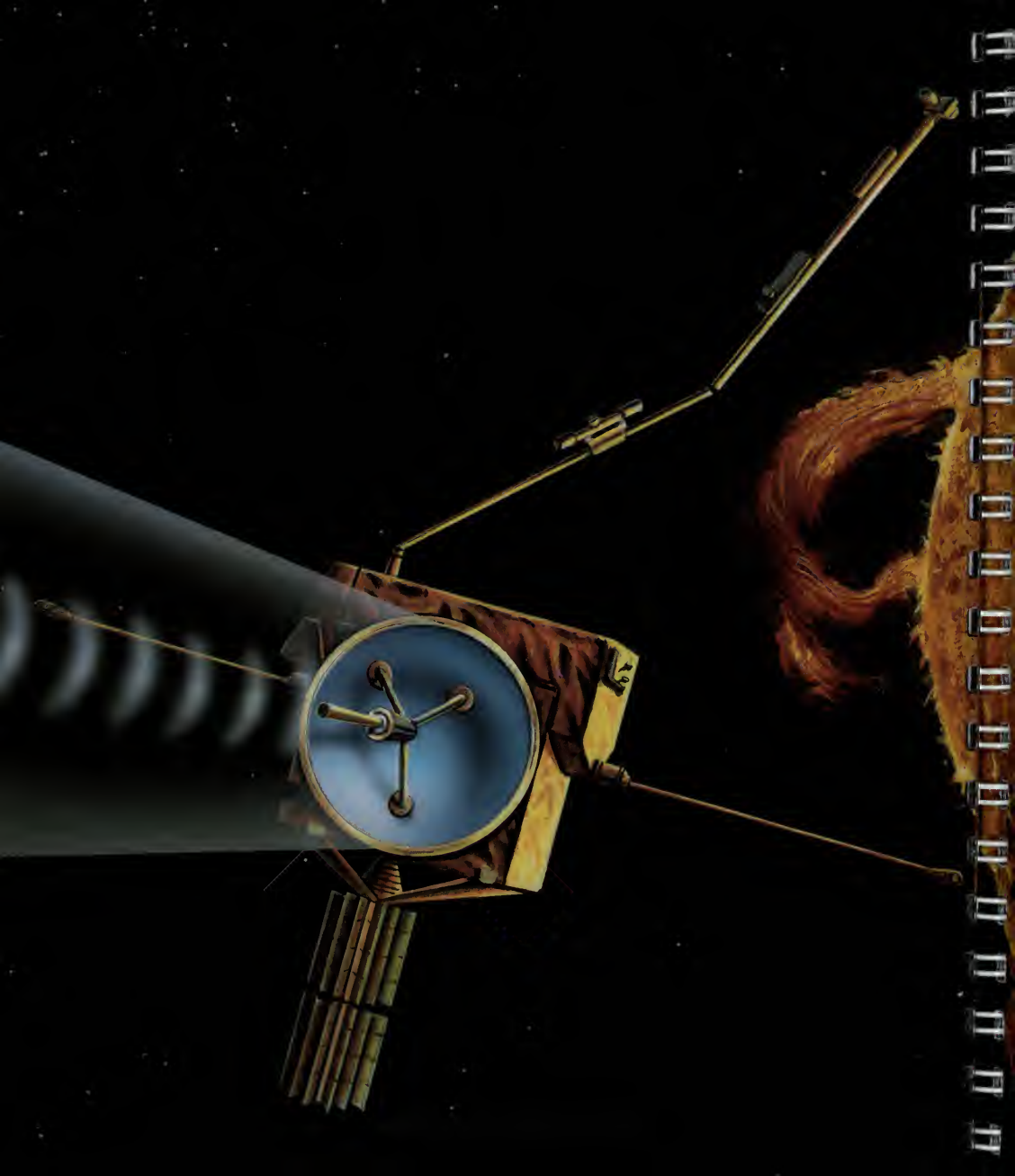


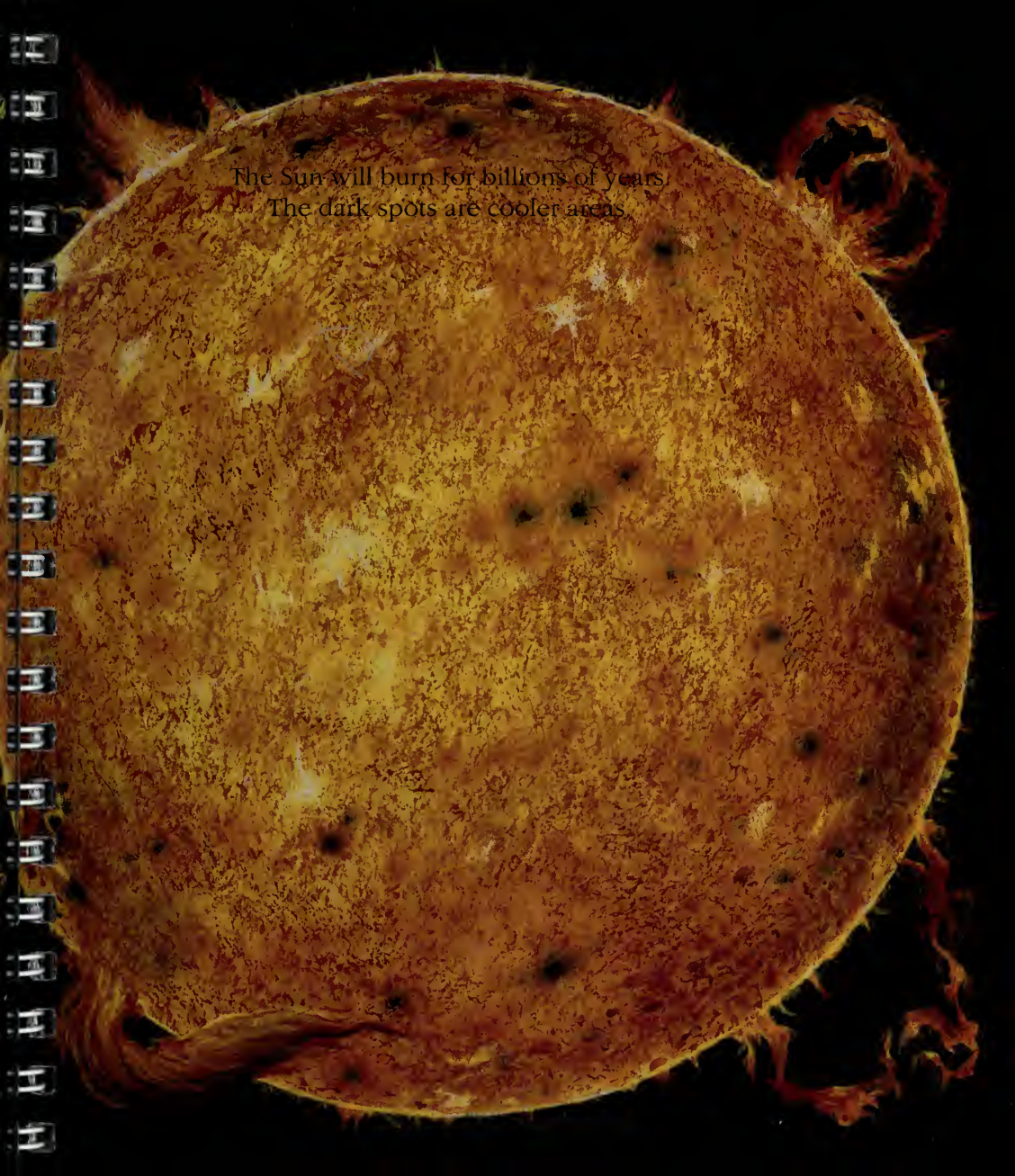
Pluto is the smallest planet.

The Sun is an enormous ball
of hot gas that produces light.
The spacecraft *Ulysses* began
studying it in 1995.







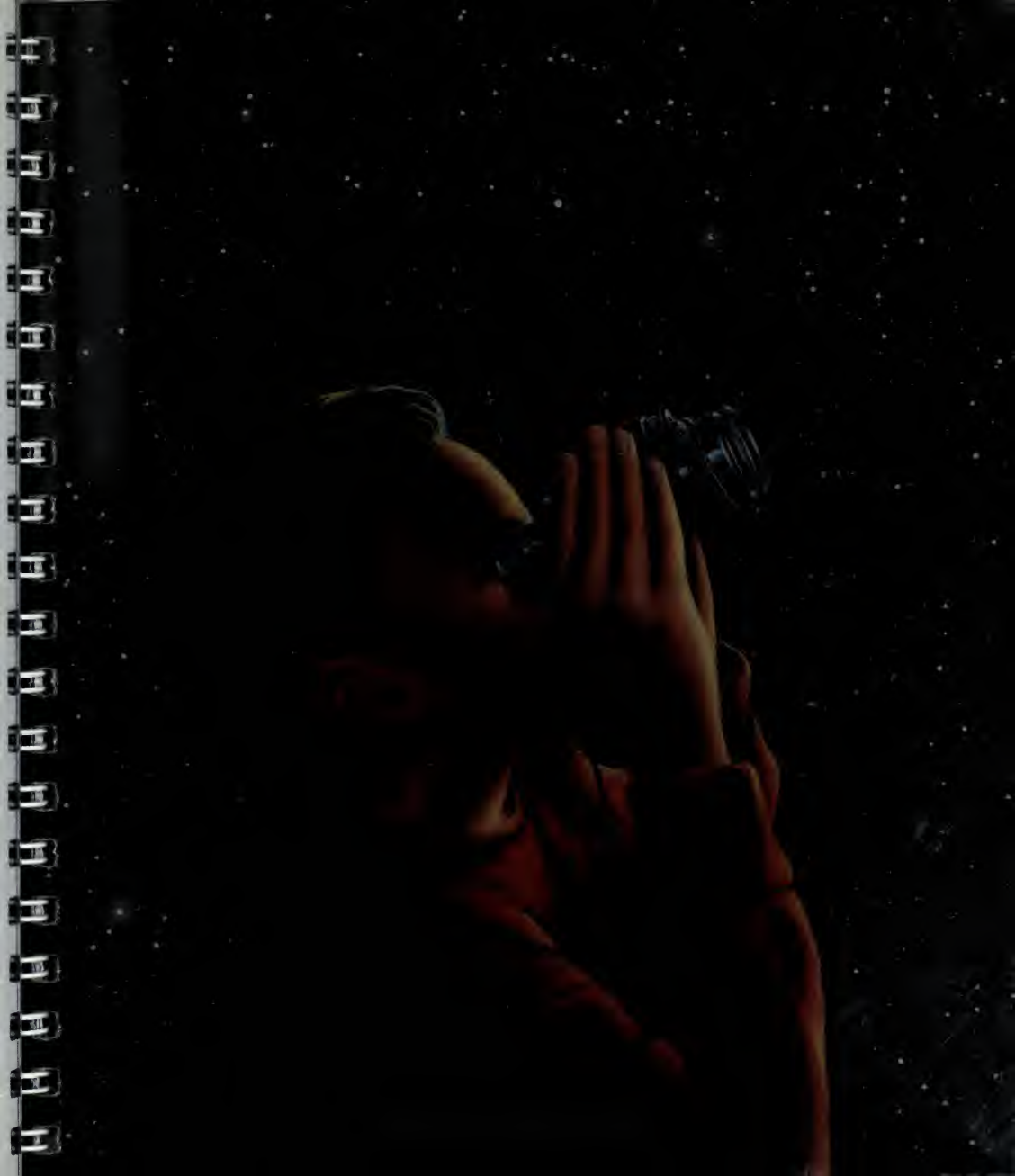


The Sun will burn for billions of years.
The dark spots are cooler areas.

The naked eye can see thousands of stars. With binoculars, you can see hundreds of thousands. With a telescope, millions!



Look for the Big and Little Dippers. The handle star of the Little Dipper shows which way is north.



The naked eye can see thousands of stars. With
binoculars, you can see hundreds of thousands.
With a telescope, millions!







Galaxies are made of stars and dust. Galaxies come in many different shapes. Our galaxy, the Milky Way, is a spiral. Our Solar System is on the inside edge of one of the outer arms you see in this picture!

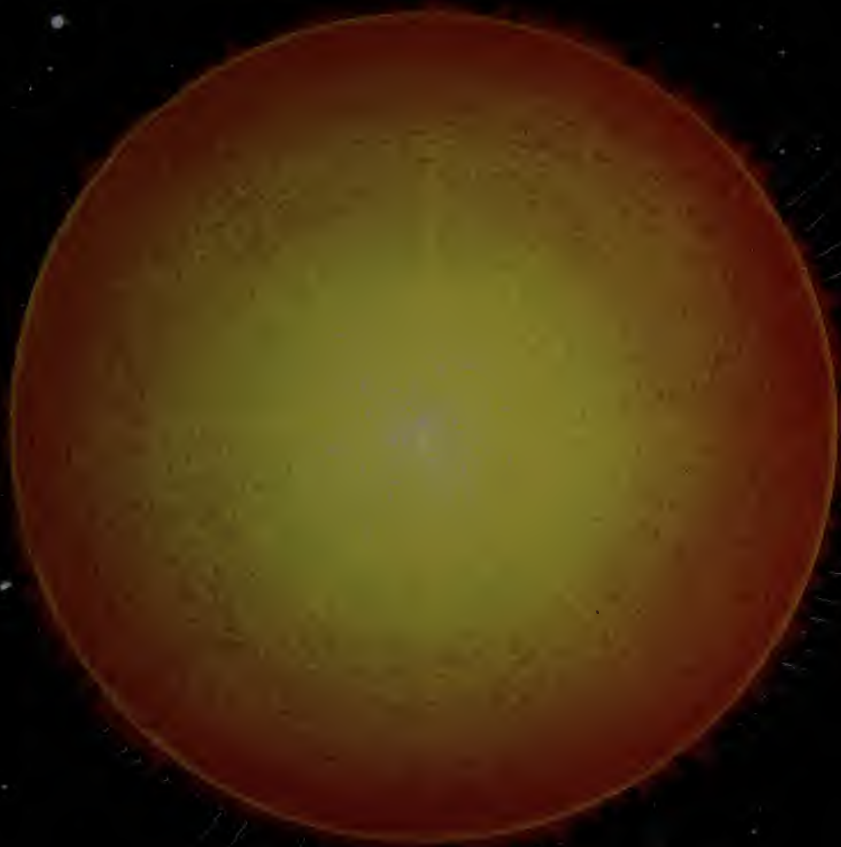
Our galaxy is one of
billions in the universe.



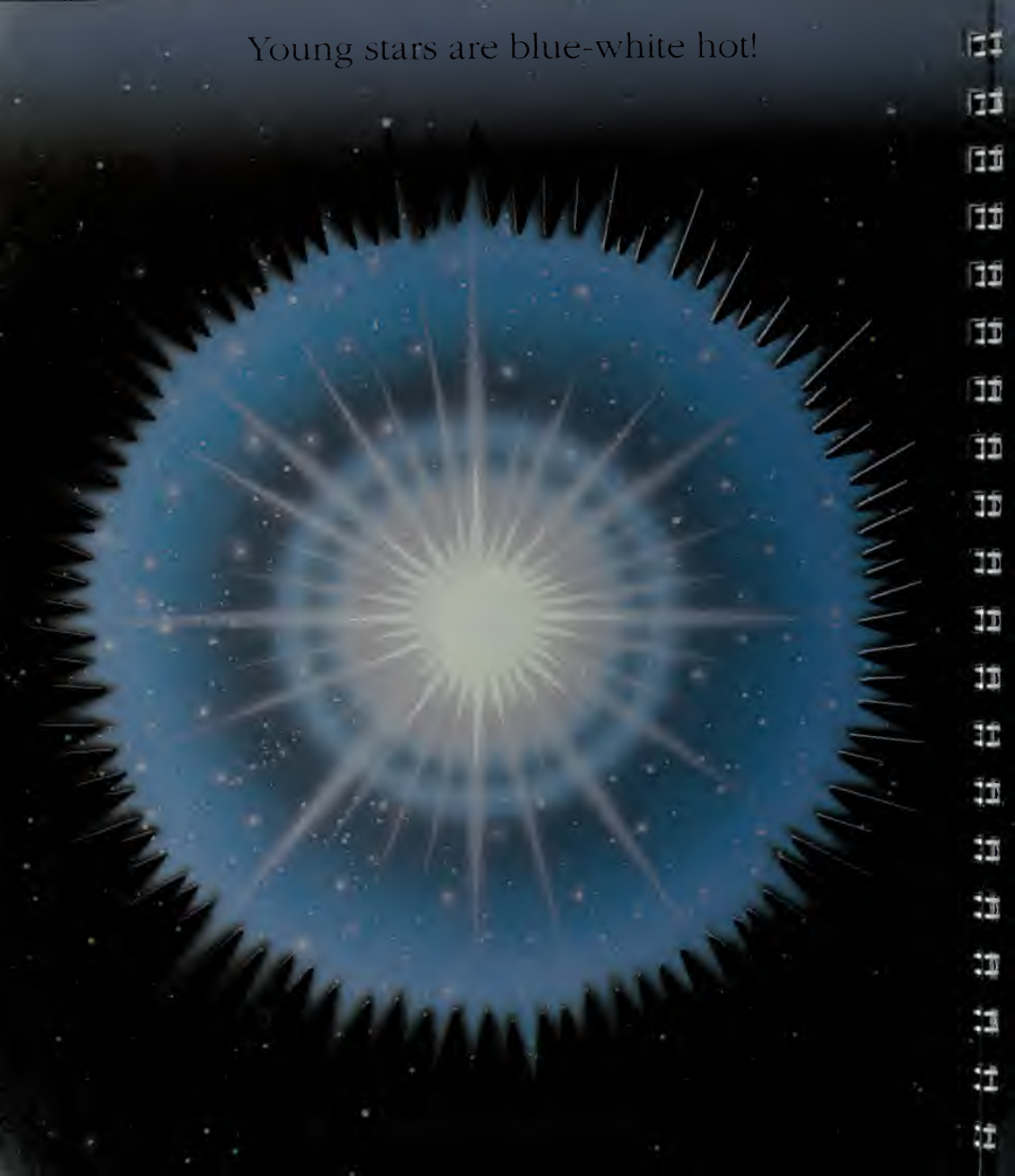
Young stars are blue-white hot!



At the end of their lives, stars swell and then explode.
Most become so small that we call them "white dwarfs."

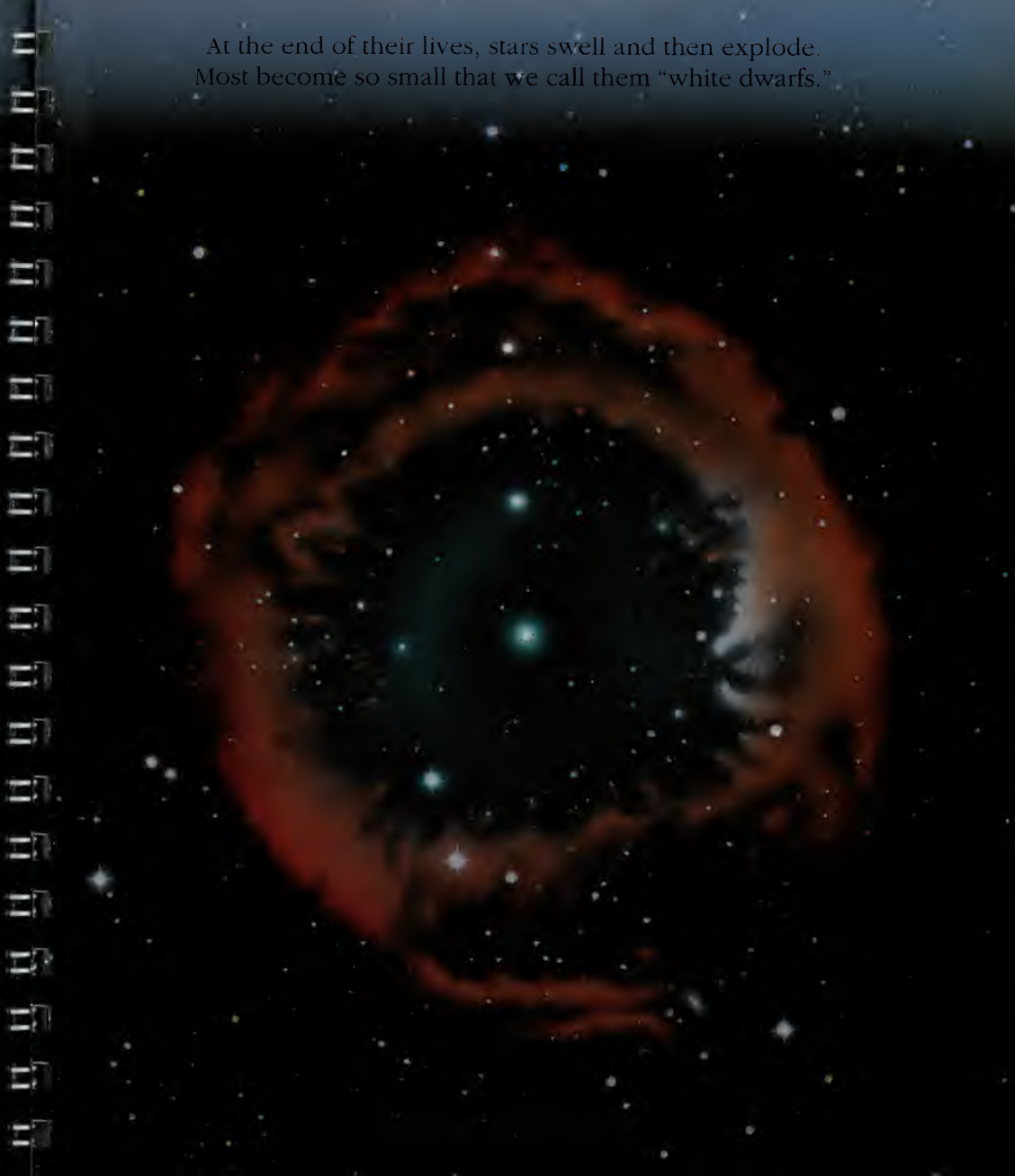


Young stars are blue-white hot!



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Most become so small that we call them "white dwarfs."



Some space history:



The Russian satellite *Sputnik* was the first man-made satellite (October 4, 1957).



The dog Laika was the first living being to orbit the Earth (November 3, 1957).



Yuri Gagarin, a Russian, was the first human to travel in space (April 12, 1961).



The American *Apollo* and Russian *Soyuz* met in space (July 17–19, 1975).

Neil Armstrong, Buzz Aldrin, and Michael Collins were the crew of Apollo 11, which went to the Moon (July 20, 1969).



Saturn V
Moon rocket



The Hubble
Space Telescope
was sent into orbit
(April 25, 1990).

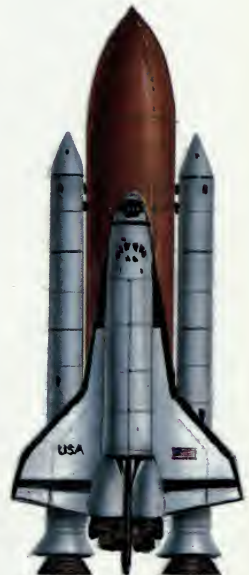
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Library of Congress Cataloging-in-Publication Data available.

Originally published in France under the title *Atlas du ciel* by Editions Gallimard Jeunesse.

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ISBN 0-590-96212-4

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This edition American text by Wendy Barish.

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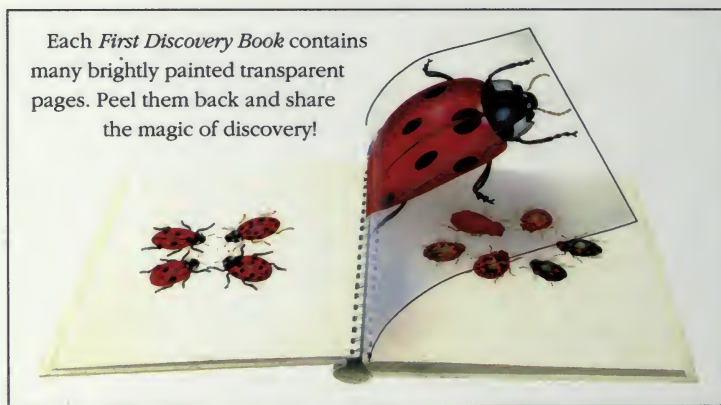
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First Scholastic printing, August 1997

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